

What is claimed is:

A method of treating sexual dysfunction in an animal with an injured spinal cord, comprising administering to an animal in need of such treatment an effective amount of a compound of formula (I):

$$\begin{array}{c|c}
R^3 0 & HN & N \\
\hline
R^4 & R^2
\end{array}$$
(1)

10

5

wherein:

20

25

30

R¹ is H; C₁-C₃ alkyl; C₁-C₃ perfluoroalkyl; or C₃-C₅ cycloalkyl;

R² is H; C₁-C₆ alkyl optionally substituted with C₃-C₆ cycloalkyl; C₁-C₃ perfluoroalkyl; or C₃-C₆ cycloalkyl;

R³ is C₁-C₆ alkyl optionally substituted with C₃-C₆ cycloalkyl; C₁-C₆ perfluoroalkyl; C_3 - C_5 cycloalkyl; C_3 - C_6 alkenyl; or C_3 - C_6 alkynyl;

R⁴ is C₁-C₄ alkyl optionally substituted with OH, NR⁵R⁶, CN, CONR⁵R⁶ or CO₂R⁷; C₂-C₄ alkenyl optionally substituted with CN, CONR⁵R⁶ or CO₂R⁷; C₂-C₄ alkanoyl optionally substituted with NR⁵R⁶; (hydroxy)C₂-C₄ alkyl optionally substituted with NR⁵R⁶; (C₂-C₃ alkoxy)C₁-C₂ alkyl optionally substituted with OH or NR⁵R⁶; CONR⁵R⁶; CO₂R⁷; halo; NR⁵R⁶; NHSO₂NR⁵R⁶; NHSO₂R⁸; SO₂NR⁹R¹⁰; or phenyl, pyridyl, pyrimidinyl, imidazolyl, oxazolyl, thiazolyl, thienyl or triazolyl any of which is optionally substituted with

methyl:

 R^5 and R^6 are each independently H or C_1 - C_4 alkyl, or together with the nitrogen atom to which they are attached form a pyrrollidinyl, piperidino, morpholino, 4-N(R11)-

5

10

15

20

25

piperazinyl or imidazolyl group wherein said group is optionally substituted with methyl or OH;

R⁷ is H or C₁-C₄ alkyl;

R⁸ is C₁-C₃ alkyl optionally substituted with NR⁵R⁶;

 R^9 and R^{10} together with the nitrogen atom to which they are attached form a pyrrolidinyl, piperidino, morpholino or 4-N(R^{12})-piperazinyl group wherein said group is optionally substituted with C_1 - C_4 alkyl, C_1 - C_3 alkoxy, NR¹³R¹⁴ or CONR¹³R¹⁴;

R¹¹ is H; C₁-C₃ alkyl optionally substituted with phenyl; (hydroxy)C₂-C₃ alkyl; or C₁-C₄ alkanoyl;

 R^{12} is H; C_1 - C_6 alkyl; $(C_1$ - C_3 alkoxy) C_2 - C_6 alkyl; (hydroxy) C_2 - C_6 alkyl; ($R^{13}R^{14}NOC$) C_1 - C_6 alkyl; (CONR¹³R¹⁴; CSNR¹³R¹⁴; or C(NH)NR¹³R¹⁴; and

 R^{13} and R^{14} are each independently H; C_1 - C_4 alkyl; $(C_1$ - C_3 alkoxy) C_2 - C_4 alkyl; or (hydroxy) C_2 - C_4 alkyl;

or a pharmaceutically acceptable salt thereof;

or a pharmaceutical compdisition containing either entity.

2. A method as defined in claim 1, wherein said compound is selected from sildenafil, and pharmaceutically acceptable salts thereof, and the compound having the structure:

and pharmaceutically acceptable salts thereof.

3. A method as defined in claim 1, wherein said compound is sildenafil or a pharmaceutically acceptable salt thereof.



- 4. A method as defined in claim 3, wherein said pharmaceutically acceptable salt is the citrate.
- A method of treating sexual dysfunction in an animal with an injured spinal cord, comprising administering to an animal in need of such treatment an effective amount of sildenafil, or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition containing either entity.
- 10 6. A method as defined in claim 5, wherein said pharmaceutically acceptable salt is the citrate.
 - 7. A method as defined in claim 1, wherein said animal is male and exhibits essentially no residual erectile function.
 - 8. A method as defined in claim \$, wherein said animal is male and exhibits essentially no residual erectile function.
 - 9. A method as defined in claim 1, where η said animal is human.
 - 10. A method as defined in claim 5, wherein said animal is human.

1 15

20